

Maths inquiry will study syllabus proliferation

by Judith Judd

A Government inquiry into the teaching of mathematics will investigate the problem of the proliferation of A level mathematics syllabuses, it was announced this week.

Mrs Williams, Secretary of State for Education and Science, told the House of Commons on Tuesday that the inquiry would look at mathematics in primary and secondary schools.

The inquiry, which is expected to be along the lines of the Bullock inquiry into reading, was the major recommendation of the report of the Committee on the Attainment of the School-Leaver.

In its reply to the report, the Government said: "The problem of syllabus proliferation is greater in the case of mathematics syllabuses than in any other subject at A level or at 16 plus."

It says that the Schools Council proposals for criteria for the validation and moderation of syllabuses should help to solve some of the problems.

The DES foresees difficulty in developing the criteria and says the question will have to be reviewed in the light of the report in the summer of 1979.

On most of the report's other

recommendations the Government is more cautious. On the committee's insistence on the importance of boards and subjects it simply points to the efforts already being made to ensure this.

It says that a reduction in the number of public examination boards might be a good thing but the Secretary of State believes it would be premature for a decision to be taken about this before the issue of an examination of 16 plus is resolved.

A reduction in the number of boards could in some respects be an improvement but it would be misleading to say that this would provide an easy answer to most of the point of concern to the committee.

The Government suggests that better communication between the examining boards and those who use examination certificates could make an important contribution to strengthening understanding between the education service and the public.

The recommendation that there should be a greater role for teachers in the development of syllabuses is also welcomed. The Government says that the provision for this was made in the rate support grant, though many teachers point out that much of the money did not reach its intended destination.

On most of the report's other

Oakes firm on overseas students

by Sue Reid

The dramatic increase in overseas student numbers in Britain during the last decade cannot be contained, Mr Oakes, Minister of State for Higher Education, warned in the House of Commons this week.

Speaking in a special adjournment debate on overseas students, Mr Oakes maintained that foreign student numbers had climbed from 32,000 in 1970-71 to 74,000 in the last academic year, a rate of increase that could not go on.

He said the House: "There has been a suggestion over recent years that we do not welcome these students. Let me make it clear that these students are certainly welcome."

But the Government wanted to seek a fairer and more rational policy. Although the Government was considering new ways of supporting overseas students that should not receive more favourable

treatment than home students. The differential tuition fee charge to overseas students "helped to even things out."

To abolish the differential fee levels would cost £12m a year and to wipe out fees altogether, as the National Union of Students suggested, would cost £110m.

The gross average institutional cost of a student at university had now reached £2,500 a year and in certain disciplines, such as medicine and the veterinary sciences, the cost could be double that sum.

Mr Anthony Kerahov, MP for Stroud and a former Conservative minister with responsibility for overseas students, who told the House: "The burden of easing hardship among overseas students has been shifted off to local education authorities, polytechnics and universities who have struggled to help."

He called on the Government to withdraw its controversial circular 8/77 which was "normally and really" unacceptable. The circular imposed a quota system, increased hostel charges for overseas students and reclassified their status.

He also called for the establishment of a commission—first mooted by the United Kingdom Council of Overseas Student Affairs and a Council for Education in the Commonwealth last year—made up of interested professional and academic bodies to advise Government on overseas students' policy.

In a statement issued by the UKCSA before the debate it was alleged that a failure in Government departmental co-operation had led to the delay in restructuring overseas student policy. It added that the commission proposal had been put on by Whitehall since November without comment.

March 24, 1978 No 333

Mrs Williams warns universities, discuss future or...

from Clive Cookson, North America correspondent

CHICAGO

Britain's academic community had better ignore the Government's invitation to discuss the various policy options for higher education in the 1980s and 1990s, Mrs Williams told an American audience this week.

The Secretary of State for Education and Science, described to the annual meeting of the American Association for Higher Education in Chicago the five models for dealing with the projected growth in British college age population over the next four or five years and the following slump, which her department published as a brown paper this month.

It was quite possible that the universities would not want to discuss them, she said, and

because of the long-term relationship between universities and Government they could not be forced to. But ultimately it was the academic community that did not take the "extremely difficult" decisions necessary, the Government would have to impose its own solution, on someone else would be most sorry to see, and it would be most damaging to the universities and their independence.

The Secretary of State told her audience of American academics and university administrators how she had tried and failed to carry out a similar exercise in consultation when she was minister of state in 1969. The universities had responded to her range of possibilities but did not respond to them, with the result that the 1970s spending cuts fell "in an unplanned manner".

Mrs Williams made clear that she personally was not optimistic about the chances of increasing

Britain's participation rates—the percentage of the 18 to 21 age group going into higher education. But she did seem hopeful about the prospects of bringing substantially more non-traditional adult students into universities and colleges to compensate for the falling number of 18-year-olds, for example, by extending the Open University, ideas for residential courses and developing paid educational leave.

The problem of aging academic staffs and the lack of openings for new blood was also covered in Mrs Williams's talk. She said science and social science faculties were effectively blocked until the year 2000, when substantial retirement of professors would begin. Things would start to move a little earlier in the arts and engineering.

Full AARE report next week

Middlesex dean suspended

The dean of art and design at Middlesex Polytechnic has been unofficially suspended while controversial disciplinary discussions are held about his future role in the polytechnic.

The dean, Mr John Reid, is the Middle East as part of a consultancy project sponsored by the United Nations Industrial Development Organisation. Permission for his participation in the project has earlier been refused by the polytechnic's deputy director.

Dr Raymond Rickett, the deputy director, said that a colleague had been appointed acting dean of art and design, but Mr Reid would continue to arrive for work on Monday. He declined to give further details but confirmed that disciplinary discussions were being held.

At the time of the suspension, Mr Reid was in the middle of a special commission to consider "the possible dismissal of senior members of academic staff."

Meanwhile, eight staff members walked out of a meeting of the polytechnic's academic board on Monday in protest at the direct handling of elections to a student constitutional subcommittee. The board is already being boycotted by the student union, which was given reduced representation after a constitution was introduced.

To ease the pressure on local authorities, this direct contribution will be shared by the local authority of only 5 per cent in the first year of the new scheme. Nevertheless, for some small authorities the financial pressure may persuade them to choose a special provision in the report under which the national body would take over the running of a polytechnic in return for a fixed annual payment from the local authority.

Polytechnics named informally as probable candidates for transfer are Huddersfield and Kingston, both of which would constitute a major financial burden under the new scheme. The local education authority would continue to nominate the governing body of a transferred polytechnic.

The report says that "it would be counter to our concept of partnership between national and local government to recommend any general transfer of institutions from local to national control."

But the Committee of Directors of Polytechnics has indicated strong opposition to the retention of local authority control over polytechnics and the use of a unified pooling system to pay for higher education. It advocates funding polytechnics by direct grants.

It is made clear in the report that if there is little support for the recommendations they could be revised or simply not implemented.

Mr Steo Broadbridge, general secretary of the National Association of Teachers in Further and Higher Education, welcomed the creation of a national body as a move towards a more unified national system of national management for higher education.

It did not accept that limited local powers, page 3

Transfer to national control is Oakes' surprise bonus

by Peter Duvell

A number of polytechnics will be able to transfer from local to national control as a result of the Oakes committee report, published this week. But they will only be able to do so if their maintaining local authority agrees.

As predicted, the report of the committee investigating management of public sector higher education proposes the creation of a national body to allocate more than 85 per cent of the costs. Direct control, however, will remain with local authorities, which will contribute up to 15 per cent of the costs of their local higher education institutions.

To ease the pressure on local authorities, this direct contribution will be shared by the local authority of only 5 per cent in the first year of the new scheme. Nevertheless, for some small authorities the financial pressure may persuade them to choose a special provision in the report under which the national body would take over the running of a polytechnic in return for a fixed annual payment from the local authority.

Polytechnics named informally as probable candidates for transfer are Huddersfield and Kingston, both of which would constitute a major financial burden under the new scheme. The local education authority would continue to nominate the governing body of a transferred polytechnic.

The report says that "it would be counter to our concept of partnership between national and local government to recommend any general transfer of institutions from local to national control."

But the Committee of Directors of Polytechnics has indicated strong opposition to the retention of local authority control over polytechnics and the use of a unified pooling system to pay for higher education. It advocates funding polytechnics by direct grants.

It is made clear in the report that if there is little support for the recommendations they could be revised or simply not implemented.

Mr Steo Broadbridge, general secretary of the National Association of Teachers in Further and Higher Education, welcomed the creation of a national body as a move towards a more unified national system of national management for higher education.

It did not accept that limited local powers, page 3

Continued on back page

Continued on back page

Legal threat if dons don't mark finals

by Judith Judd

University lecturers could face legal action if they refuse to mark final degree examination papers this summer.

In a memorandum to branch heads of the Association of University Teachers, the association has urged lecturers to mark final degree examination papers this summer.

The memorandum was drafted by the Association of University Teachers, which has urged lecturers to mark final degree examination papers this summer.

Accordingly, the association feels the likelihood of action against lecturers is small. The external examiners' position is more difficult. He would be liable to have his contract discharged. He would also lose his fee and be liable in law for any damages caused.

Differences in university statutes further complicated the issue. They may not, may not contain powers to suspend a member of staff for non-compliance. In addition, statutes providing for dismissal would need to be scrutinized to see whether they covered the case of refusing to mark examinations.

Surveys' council voted overwhelmingly in support of the action. A Government offer to put the matter to the next three years.

Continued on back page

Continued on back page



Bonnie into a brisk spring breeze these flag-bearers on Sunday for the 1978 National Polytechnic Team Racing Championships at the National Waterports Centre, Nottingham. The Sheffield team, in blue, won.

Call to fill ACSTT void

The Government's Advisory Committee on the Supply and Training of Teachers has indicated strong opposition to the retention of local authority control over polytechnics and the use of a unified pooling system to pay for higher education. It advocates funding polytechnics by direct grants.

It is made clear in the report that if there is little support for the recommendations they could be revised or simply not implemented.

Mr Steo Broadbridge, general secretary of the National Association of Teachers in Further and Higher Education, welcomed the creation of a national body as a move towards a more unified national system of national management for higher education.

It did not accept that limited local powers, page 3

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

How to get teaching jobs

Success in finding teaching jobs is closely related to the type of course taken, according to a major unpublished survey produced by the Department of Education and Science.

The survey report, presented to the Advisory Committee on the Supply and Training of Teachers, takes of a hierarchy of success for students seeking jobs in 1977.

At the top were postgraduate certificate of education students from the universities, then the PGCE students outside the universities, bachelor of education students and those with certificate of education.

The figures for the four groups were 77 per cent success, 70 per cent, 63 per cent and 50 per cent.

The survey covers all non-university institutions of teacher training and the 1978 teaching year. It is based on questionnaires covering 89 per cent of an estimated total output of 32,900.

Although the institutions which did not reply and the students whose fate was unknown the 1978 teaching year, 7,259 were unemployed and still seeking teaching posts at the end of last year.

However, it says the true figure is probably higher since those about whom nothing was known were not included.

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page

Continued on back page



During the years Benjamin Jowett was vice-chancellor of the university, he took a keen interest in the finances of Oxford University Press. A new informal history of the press discusses his role, 13

Brookings Briefing

Two of Britain's policy studies institutes have merged. Peter David gives the background, 9
Leader, 12

Labour's Mr Fix-it

Despite his growing involvement in government, Lord McCarthy still believes himself to be more academic than politician. Judith Judd reports, 8

Ruskin College

Sue Reid describes the work of this centre of adult education, 8

Ancient and modern

Professor Robert Ogilvie reviews a new book which aims to show how modern social anthropology can help us understand classical Greece, 14

Darwin colloquium

In the final articles, the spotlight is turned on architects and engineers, 10-11

North American news

Overseas news
Noticeboard
Don's diary
Letters
Books
Classified index

Peace move on PCL fine

by Peter David

The Inner London Education Authority's £50,000 fine on the Polytechnic of Central London may be lifted as the result of a conciliatory resolution on overseas students approved this week by the polytechnic court.

Fines totalling £100,000 were imposed by the authority in January on two polytechnics which failed to keep within the ILA quota restrictions on overseas students. Thames Valley Polytechnic, which claimed that it exceeded its target because of technical difficulties, was reprimanded last week.

After a debate of the Polytechnic of Central London this week the court approved a resolution recognizing "the right of the ILA in require from PCL a policy which regard in student admissions in conformity with its block grant stipulations."

But the resolution also states that "specific discrimination against the entry of students from overseas territories was not part of the polytechnic's policy, and that it has no wish that it should be so in the future."

The resolution is "sympathetic to the ILA's difficulty of accommodating a disproportionately large fraction of overseas students in London compared with the rest of the country, but claims that the additional overseas students recruited outside the quota have occupied spare places at a marginal level only which were beneficial and not detrimental to the economic situation of the ILA use of the PCL."

There was a need for positive thinking on recruitment, and universities and polytechnics would do well to study the attitude of the teacher relating colleges to modern students right up to the beginning of the reduction in intake.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Plea to assist working class

by Maggie Richards

A greater effort should be made to encourage more young people from working class homes to enter higher education, Mr Oakes, Minister of State for Education and Science, told a meeting in London last week.

Mr Oakes also wanted to see more provision for the continuing education of mature students already in employment.

Speaking at the City Literary Institute, he said: "It seems to me quite wrong in this day and age to suggest that the application for higher education come from homes in the two occupational groups that cover managers, administrators and professional people, which makes up only about a quarter of the population."

"When you consider that this proportion has actually increased since 1970—when it accounted for about 44 per cent of successful applicants—it is obvious that all occupational groups are seriously under-represented in higher education."

There was a need for positive thinking on recruitment, and universities and polytechnics would do well to study the attitude of the teacher relating colleges to modern students right up to the beginning of the reduction in intake.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Dr Keith Thompson, a Conservative junior education spokesman told the meeting that education had a key role to play in offering opportunities of adjustment to the changing economic, social and moral environment.

Mr Heath heads lobby to bring youth to centre of stage

by Patricia Sentinelli

The education, training and employment needs of young people are to be examined by a new all-party parliamentary lobby launched this week to bring youth questions to the centre of the political stage.

Mr Edward Heath, the former Prime Minister, who is chairman of the lobby, said that for the first time youth organizations had come together to take some common action.

"In my experience, this is a new form of parliamentary organization," he said. "We plan that MPs and leaders of youth organizations should meet together to propose a policy on a wide range of topics concerning young people. At the moment there is no coherent policy, there is only independent action by Government departments on individual aspects of youth activities."

The lobby, which is to meet after Easter, has already received the support of Mrs Williams, Secretary of State for Education and Science.

Mr Gerry Fowler, former MP for the Department of Education, said that the new lobby was a "very unusual in the world of such bodies to come together for any reason."

The new Youth Opportunities Programme will fall under the umbrella of the new lobby, which will be taken, immediately, by Mr Gerry Fowler MP for the West of Scotland.

Mr Fowler said that the new lobby was a "very unusual in the world of such bodies to come together for any reason."

The new Youth Opportunities Programme will fall under the umbrella of the new lobby, which will be taken, immediately, by Mr Gerry Fowler MP for the West of Scotland.

Mr Fowler said that the new lobby was a "very unusual in the world of such bodies to come together for any reason."

The new Youth Opportunities Programme will fall under the umbrella of the new lobby, which will be taken, immediately, by Mr Gerry Fowler MP for the West of Scotland.

Mr Fowler said that the new lobby was a "very unusual in the world of such bodies to come together for any reason."

The new Youth Opportunities Programme will fall under the umbrella of the new lobby, which will be taken, immediately, by Mr Gerry Fowler MP for the West of Scotland.

Mr Fowler said that the new lobby was a "very unusual in the world of such bodies to come together for any reason."

Five polys chosen for elite degrees

continued from front page

applied science should be held by them. The financial incentive to occupational students would justify this recognition.

The scholarships will be tenable on first degree full-time or sandwich courses at any university or polytechnic in the United Kingdom covering engineering and its related subjects, but courses which include industrial experience will be given priority.

More than 25

Unions want 'more practical' TV courses

by Maggie Richards

The advantages and disadvantages of a joint venture to trade union studies between the BBC, the TUC and the Workers' Education Association are outlined in an interim report released last week.

Compiled by Mr Tony Matthews, executive producer of BBC Television's further education department, the report reveals that in the third year the project will revert back to covering practical issues of the kind covered by programmes during the first year.

The report concludes that trade unionists want courses of direct relevance to their own workplace experience, rather than broader issues dealing with the relationship between unions and society.

In 1975 the BBC agreed to collaborate with the TUC and WEA on a three year project to meet the needs of trade unionists. The course, *Trade Union Studies*, was designed to enable them to understand some of the problems and issues facing unions, and to encourage them to participate in discussions on union policy.

Under the terms of the agreement the BBC was committed to the production of three series of ten television programmes to accompany postal material and face-to-face tuition arranged by the TUC and WEA.

Among the advantages of the joint venture, the report records the recognition by both the TUC and WEA that educational broadcasting could be a legitimate and dynamic partner in planning and achieving common educational objectives.

It also remarks on the greater effectiveness of the broadcasts and printed materials when linked to face-to-face discussions and follow-up postal courses.

The report comments, too, on the greater credibility attached to the

BBC contribution because of TUC and WEA backing.

Among the disadvantages, it highlights the complexity of decision-making and communication, and difficulties caused by the different tempo of course material production within the partner organizations.

The arrangement also led to a tendency to pre-centralize and ignore the possibility of involving teachers and trade unionists at local level, the report says.

Reviewing the effect of the programmes on trade unionists, the report notes that the two series shown so far did achieve credibility as trade union programmes, and there were few allegations of BBC brainwashing.

But it says trade unionists were able to relate more easily to the first series, which dealt with subjects such as overtime, redundancy, and health and safety at work. These issues were more often within the experience of the audience than the second series dealing with wider policies such as trade unions and the economy.

The report also forecasts a number of changes in the third year series, arising from the lessons learned over the past two years.

One will be a return to more practical grassroots issues, while another will be a strengthening of the face-to-face tuition, with a much closer link between BBC materials and TUC day-release classes.

A final report on the project is expected in early 1979. A team from Sheffield University's extramural department is at present conducting an inquiry into the effectiveness of the project, backed by a £22,500 grant from the Social Science Research Council.

Trade Union Studies: A partnership in adult education between the BBC, the TUC and the WEA, published by BBC Education, 35 Marylebone High Street, London W1M 4AA.

'Shortage' of engineers at Bradford

by Judith Judd

A serious shortage of graduates in engineering and physical sciences is noted in Bradford University Careers and Appointments Service annual report.

The report says that mounting evidence of the shortage is ironed in view of the fact that employment prospects for graduates were only slightly better in 1977 than in 1976.

It says that fewer people went into the public services but the increase in people going into industry made up for this. However, it suggests, there are dangers in the swing away from public service jobs.

"The flow of good honours graduates into maths and science teaching has almost stopped. The trend, if repeated nationally, will have disastrous long-term effects."

The proportion of Bradford grad-

uates still looking for jobs on December 31 was nine per cent. The figure for engineering and physical science graduates was three per cent.

Durham University Careers Advisory Service report remarks on a permanent change in the pattern of graduate employment.

More first degree graduates have taken longer to get first jobs and more have initially entered temporary employment. At the same time, the chances of higher degree graduates getting first jobs in higher education has declined.

The effect of these changes has been to increase the competition which new first degree graduates face when seeking for jobs. They compete increasingly with graduates of previous years as well as with their contemporaries.



Mr Oakes, Minister of State for Education and Science, makes a point to students demonstrating anomalies in the grant system outside Hull College of Higher Education. Mr Oakes is attending the formal opening of the college last Thursday.

Business history unit to be based at LSE

A business history unit is being set up in London University by the London School of Economics and Political Science and Imperial College.

The unit will be based at the LSE with a full-time director. One of its aims will be to provide links with work on the development of technology and invention.

The business world has so far contributed £208,604 in response to an appeal sponsored by Sir Alistair Pilkington.

The aim of the new unit is to build up a body of research and teaching to complement university work on labour history.

Its research work may include the development of modern management, decision-making in business and the reasons for business failure.

The unit will also run seminars for businessmen and academics to discuss. A steering committee to manage the unit's financial affairs will be chaired by Professor Ralf Dahrendorf, the LSE's director and its academic management committee by Professor T. C. Barker from LSE.

Collaboration needed on open learning for mature students

by Patricia Santinelli

Collaboration on open learning systems for mature students is urgently needed before a situation already deteriorating through lack of funds grows worse, a report by the Council for Educational Technology warned this week.

The council fears that unless the various agencies and colleges concerned with offering educational access to mature students come together to form a coherent programme of work and research, valuable projects will be shelved at a time ripe for expansion.

A foreword to the report by CET director Mr Geoffrey Hubbard, says: "We have concentrated on the mature student pluming for a qualification whether for advancement in his career or for personal achievement, but who is unable to follow a non-degree course by means of full-time or regular part-time attendance at a local college."

"The question we are seeking to answer is how we can improve the present arrangements so that students can more readily study the subjects of their choice at times and places which suit their needs."

The CET sees the development of open learning system as a gradual, centrally coordinated activity, drawing on a range of local, national and international networks.

Mr T. Charles Davies of the local education authority, the City of London Education Authority, said that the need for a variety of mature studies representative of a national network of open learning systems.

He suggests that the most realistic way forward would be to bring together with appropriate support a number of mature studies representative of a national network of open learning systems.

To achieve this, Mr Davies suggests that CET should establish a standing conference on open learning systems, research and development, representing all interested parties.

Open Learning System for Mature Students, by T. Charles Davies, Working Paper 14, The Council for Educational Technology, 21, Shire Street, London W1R 2BA.

DES lists 850 long courses for teachers

Courses leading to higher degrees in education are included in a new programme of long courses for qualified teachers announced last week by the Department of Education and Science.

The booklet lists around 850 full-time and part-time courses of further 240 education institutions for periods of four weeks or more.

Mr Oakes, Minister of State at the DES, said that the courses covered not only advanced study but also many other valuable areas of school curriculum. It also includes courses in the teaching of handicapped children and pupils

perceived teacher to add to their experience. Other courses will benefit those of lesser experience in a general or specific context."

"But the end benefit will, of course, be to the advantage of the pupils, whether their particular needs are specialist or otherwise."

The programme covers a wide range of subjects including advanced educational studies related to pupils of various age ranges and studies in all the main subject areas of school curriculum. It also includes courses in the teaching of handicapped children and pupils

with special educational needs, curriculum development, learning and careers work, language and reading, educational psychology and in education in a multicultural society.

In notes for applicants the booklet gives details of eligibility, methods of application and financial assistance additions to salary.

Programme of Long Courses for Qualified Teachers 1978/79, Working Paper No. 1, available free from DES (Teachers Branch Division, Elizabeth House, 39 York Road, London SE1 7PL.

Powers of Oakes body limited on local HE

by Peter David

A national body to oversee and finance higher education in the maintained sector is the main recommendation of the Oakes report, published this week. The report will negotiate the total amount to be spent and allocate funds in individual local authorities and institutions. It will also be responsible for planning higher education provision in collaboration with the University Grants Committee.

Some 65 per cent of the total cost of public sector higher education will be distributed by the national body from a modified system of pooling. The remainder will be paid directly by maintaining local authorities through their county rates which will start at 5 per cent only after a period of years.

The direct contribution from individual local authorities, however, will vary—15 per cent is the target average for the system as a whole. The report says: "It is no part of our proposals that the national body should have power to direct local authorities in relation to their higher education provision. In general, it will need to proceed by negotiation and with the agreement of individual authorities."

Three main groups will be represented on the body, which will have up to 28 members: up to nine will be nominated by the local authority associations, and this group will have a power of veto if its members are unanimously opposed to an issue. The second group, made up of the governing bodies of the universities, will be referred to the Secretary of State.

Another eight members, representing the staffs of colleges and polytechnics, will be nominated by the Committee of Directors of Polytechnics (two); the National Association of Teachers in Further and Higher Education (three); and the Secretary of State (three). A third group of between eight and 10 will be selected by the Secretary of State to represent the academic world, industry and commerce.

Members will serve in an individual capacity for a renewable fixed term. A definite limited number of alternatives will be named and entitled to receive papers. The

body's remit will extend to all forms of maintained higher education and it will also have a role in relation to the direct grant and voluntary colleges, which at present receive grants from the Department of Education and Science.

The report also contains recommendations about the local management arrangements for institutions. While local authorities should retain overall responsibility, institutions should be given maximum freedom, with their governing bodies providing "a clear focus of authority and accountability".

Academics, however, should have access to relevant financial information "to enable them to assess the implications of academic decisions: governing bodies should take account of the academic board's views about academic implications of financial decisions."

Nine new regional advisory councils should be established in England for coordinating public sector higher education, including in-service teacher training. Universities will be invited to take part. Each RAC will have a governing body with senior academics to deal with higher education and in-service training.

The report makes it clear that the Oakes committee's terms of reference prevented it from deciding on the merits of changing the way in which higher education is financed. It says: "This ruled out consideration of the wholesale transfer of institutions to other management. We recognized, however, that some would advocate measures of this sort and failure on our part to recommend changes which could have the way for such developments."

Fresh legislation will be needed to change the pooling arrangements as envisaged in the report, but in the interim steps—such as the creation of a "shadow" national body—could be taken pending legislation, the report says. Similarly, the new regional advisory councils should be set up "urgently".

Report of the Working Group on the Management of Higher Education in the Maintained Sector (Cmd 7180 £1.35, HMSO).

Academic and industrialist job exchange suggested

University staff and industrialists should have the opportunity to exchange jobs, Mr John Harris of Manchester University claimed at a meeting of the Institution of Nuclear Engineers last week.

He said: "I cannot understand why university staff and industrialists should not have the opportunity to exchange jobs for six or 12 months."

Industrialists had been less than generous in informing universities about their activities and it proved difficult for universities to provide relevant courses if industry left them "in the dark".

Calling for increased industrial sponsorship of students in the engineering disciplines, Mr Harris said the courses they followed was a secondary issue. He criticized the common complaint from industrialists that universities were not preparing undergraduates for specific jobs. This was not the job of the universities, he said.

Mr Peter Bailey, of the Nuclear Power Company, said that he had been disappointed with sponsorship and particularly with the standard

of school leavers applying. "As I go round the universities I have been very depressed to discover what appears to be a lowering of academic standards. Industry needs quality and I ask universities to observe that principle."

Sir Henry Pilkington, chairman of the inquiry into the engineering profession, told the meeting that lack of understanding about the need for career development schemes in industry was inhibiting the recruitment of engineers. The trouble stemmed from the industry's reluctance to organize.

Too few nuclear engineers were being trained to meet existing needs, Professor Gilbert Walton, of Imperial College, London, alleged. He said that only 15 a year were being trained to meet an annual loss of 400 from an industry that was more than 300 short.

A further cause for concern was the low number of British-born students in relevant courses. "It is very disappointing. The universities have been largely responsible for the development of the nuclear industry abroad rather than in this country."

Attack on plans to limit Loughborough growth

Plans to limit the enrolment at Loughborough University have been criticized by Dr Clifford Butler, the vice-chancellor, in the university's annual report.

Dr Butler condemned the University Grants Committee for wanting to keep the 1980-81 figure for student enrolment there to about 5,300.

"We already have 5,100 full-time students including those on industrial training, so that very little growth can be envisaged during the next three years, certainly less than the university would wish to see."

Consequently we shall have to take great care in choosing our

priorities. New courses at undergraduate and postgraduate level will only be possible by sacrificing some existing activity, which seems unlikely."

Although the university would grow significantly, it would confine its efforts to a target of about 6,000 full-time enrolled students in order to stimulate changes and develop the next five to 10 years.

Dr Butler also stated that despite the decision to increase postgraduate tuition fees for overseas students to £850 a year, there had been an unexpected rise in foreign graduate numbers at Loughborough from 121 in 1976 to 166 last year.

However, he warned that the Government should not rush into their proposals to change overseas student fees without developing countries, the full fees for study in this country—about £2,000 per annum.

Investment in offshore industry at Robert Gordon's Institute of Technology in Aberdeen has now reached £250,000, the director, Dr Peter Clarke, has revealed in the institute's annual report.

The rapid growth and proposed developments in this field, together with courses in Mechanical, Navy safety of Scottish engineering, led to support from the Scottish Education Department, and also from industry.

'Charge EEC students at host's rate'

by Sue Reid

Higher education students in the European Economic Community who study in other member states should be charged the home tuition fees of the host country, it has been proposed in a special EEC consultative document.

The document, released by the Department of Education and Science this week, also proposes that in member states where home students are absorbed from paying fees the same ruling should apply in foreign students from within the EEC.

It recognizes three fundamental principles relating to student admissions within the EEC: that student mobility within the community is desirable; that this should be reciprocal and that student admissions from EEC member states should be on the same basis as those from the host country.

The document claims that maintenance grants, if awarded, should be automatically transferable at least for a period in another member state. It also calls for a "community level" fund to deal with the cost of living differences facing students in different member states.

To encourage linguistic competence the EEC commission suggests that the development of special certificates should be considered together with a community level scheme for language tuition.

It adds that students attending part of a course in another member state should be excluded from any numerical limitations and urges the development of higher education certificates, Acceptance, rise from 1,297 in 1976 to 1,834 for 1977 and a further rise is expected this year.

The annual report is available from the Central Register and Clearing House Ltd, 3 Crawford Place, London, W.1, price £1.

Applications through the Graduate Teacher Training Registry are only

Applications down but not out

Applications for teacher training are down by nearly 23 per cent compared with this time last year, according to the Central Register and Clearing House. However, the figure is a considerable improvement on November when they were down by a third. The Clearing House says a further improvement is expected.

Applications through the Graduate Teacher Training Registry are only

1.7 per cent less than on a similar date last year.

The Clearing House is now registering candidates for admission to degree and diploma of higher education courses. Acceptances rise from 1,297 in 1976 to 1,834 for 1977 and a further rise is expected this year.

The annual report is available from the Central Register and Clearing House Ltd, 3 Crawford Place, London, W.1, price £1.

Forum created for Scots engineers

by Robin McKie

Scottish engineers will be able to give their views on the reshaping of their industry to members of the Edinburgh committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

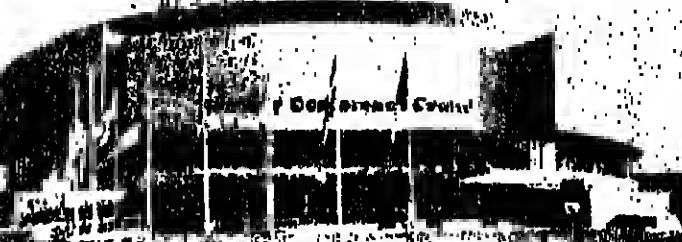
The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

The meeting has been arranged to allow members of the committee, which is inquiring into the training and education of engineers, to learn the first hand how rank-and-file engineers feel the industry should be shaped so Britain can meet greater competition in the world market.

Scotland's economy has largely been founded, and is still heavily dependent, on the engineering industry. The relevant committee at a special meeting to be held in Glasgow next week. The discussion conference, which has been organized by the Scottish branch of the Council of Engineering Institutions, will be held on Tuesday (March 28) in Strathclyde University and is expected to attract several hundred engineers.

Come to your senses



Audio Visual '78 exhibition and conference

This session you should be aware of audio and visual ones. Effective communication through the use of audio-visual aids — that's the message to you at Audio Visual '78.

Whether you are selling, training or concerned with education, the entertainment business, security application in industry or any other form of communication, Audio Visual '78 is for you.

The complete exhibition from the simplest through to the most sophisticated equipment will be on show at the exhibition, taking up the whole of the Wembley Conference Centre.

There are four professional conferences with top speakers on each of the following applications of AV techniques: Conferences, Exhibitions, Sales Promotion and Publicity, & Training. A visit to either the exhibition or a conference — or preferably both — could bring increased efficiency to your organisation.

For full information and your complimentary exhibition ticket, post the coupon below. It really does make sense!

audio visual Exhibition & Conference
EFFECTIVE IN EVERY SENSE
Wembley Conference Centre May 23-26, 1978

Please send me brochures containing full information and without obligation.
Ticket to:
Name:
Address:
Post to: Jane Lyall-Jack, AV '78, PO Box 108, 69 77 High St, Croydon, CR9 1QH, Tel 01-888 7788 Telex 046686

Sponsored by **audio visual**

The postgraduate Institute is the largest and oldest of the degree awarding centres for mainly foreign students. It was established after the Second World War, and has very close links with the universities of Delft and Wageningen.



In this final article on the Darwin College Colloquium on "Professors and Professionals" the principal themes are science, technology and architecture. Among a group of eminent academics and professionals invited to lead the discussions Mr Alex Gordon, past President of the Royal Institute of British Architects, introduced that on his own profession. The report on that section is given below and at right is the discussion concerning science and technology.

Problems of drift from the practical

Mr Alex Gordon, speaking of architecture as a discipline, said there is a basic distinction between the "old" professions such as the Church, law and medicine, whose association with the universities is long established, and the "new" professions such as architecture, whose association is more recent.

According to Lord Butler, during the nineteenth century, "university education... was a means of acquiring wisdom and satisfying curiosity, but it was not an instrument for the resolution of social ideas". In these terms, there was clearly no place for a practical art such as architecture in the older universities.

The Royal Institute of British Architects established a voluntary association for architecture in 1882. Towards the end of the nineteenth century schools of architecture were becoming established in art schools and universities—and shortly afterwards some sought to have their examinations recognized by the state. The first was Liverpool University whose students were exempted from a practical information examination in 1902.

In 1910 RIBA established its board of architectural education and in 1924 set up a visiting board to recognize courses and regulate standards. Both boards now incorporate professors and professionals and courses are closely related to the demands of practice, although universities have no specific obligation to do this. RIBA, to its credit, has never attempted to use its visiting board to establish a curriculum, and always tried to keep the needs of the individual in mind.

An important step in the development of the profession came in 1911 when the Architects Registration Bill required qualification by examination for all holders of the title "architect". This formalized a division of architecture into the full-time professional and the part-time professional, and traditional part-time preparation for the RIBA examinations.

As late as 1957 a roughly equal proportion of architects were being trained by each method. In 1958 the Oxford conference on architectural education resolved to raise standards by requiring two A levels for entry, and by seeking to confine courses to the universities or institutions of comparable status.

It also urged the founding of postgraduate courses and the development of research in the architecture schools. The effect of these decisions has been to raise the academic standing of both courses and the profession.

Architecture has thus changed from a vocationally-based training to a university-based intellectual discipline. It is clear that things have changed, but some schools have equated intellectual respectability with a departure from practice. The realities which practice has in two have tended to become submerged in the pursuit of more intellectually stimulating issues, and some schools have concentrated on "fringe" subjects at the expense of essential knowledge and skills. This formance of the reputation and performance of the profession.

The issue of who should determine the organization of professional training has been highlighted by entry to the EEC, and the consequences of standardizing qualifications. The professionals and the universities should not abdicate control to the politicians, who tend to be concerned with issues of remuneration. The academic and the practicing architect are complementary and interdependent, and are best placed to make a long-term, constructive view of future development.

Dr Nicholas Bullock took a strongly critical view of the present balance between academic and practical training. He said that the professionals and the universities should not abdicate control to the politicians, who tend to be concerned with issues of remuneration. The academic and the practicing architect are complementary and interdependent, and are best placed to make a long-term, constructive view of future development.

Unlike medicine or law, no professional qualification is required to build. The process by which architects distinguished themselves in terms of social status from builders can be traced to pressure for a clerical profession in the nineteenth century. Basic qualifications were stipulated and attempts made to assure minimum standards of competence and integrity.

The delicate process of changing from a universal privilege system to a system of full-time, formal education was accelerated by the first International Congress on Architectural Education held in London in 1924. It was clear that such a change would further enhance the status of the profession and attract to it the general adoption of the study system of teaching, following models presented by the French and American delegations. This was a compromise between academic and practical demands.

Although the studio remains at the centre of all architectural courses, it is difficult to run successfully because design is essentially the solution of particular problems, and general skill is required to draw designs to the content of technical lecture courses. There is a danger that the architect will become a designer, ignorant of both principle and practice.

Since the 1928 conference, which emphasized the studio side of architectural education, the schools have been tempted, in each aspect of the subject which should properly be learned in practice, for their part, the architectural practice here had some unrealistic expectations of the skills which graduate students could be expected to have. In most cases, architects are unable to make use of the skills which they have learned.

To establish a balance between academic education and architectural training, the present system of five years in university, plus a period of office experience before the professional practice examination, should be replaced by an arrangement in which students should only three years in university, followed by three years of training in an office on the part-time pattern, as in articles in the legal profession.

This would benefit the profession and the schools alike, by giving it a more fundamental role in training, thus ensuring competence from the beginning of professional training, and allowing them to concentrate on their own research. The importance of research is an aspect of architectural education which has tended to be ignored in debates about the profession. The existence of such a professional body could, in fact,

serve to suppress salient social interests, giving prominence to scientific and technical matters, while reducing students to the very passive recipients of a prescribed education.

In such circumstances innovation would be stifled and conservatism would prevail. There was some discussion of whether "social interests" could not adequately be articulated by the architect's clients. Dr Bullock said professional associations had a guarantee of expertise to clients. Mr Gordon pointed out that employing an architect leads indirectly to a product, which makes the fiduciary aspect of relationships with a client very important. The development of RIBA was a logical consequence of this, representing the development of better services to the community.

The members drew attention to the tendency of speakers in the division of curricula between the professions and the professionals. Education was simply a ruse for maintaining a closed shop; since the mid-nineteenth century, education has been used to give rights to a "closed" profession, or to a "free" profession, or to a "mixed" profession (although the PhD poses a threat) and there is no convincing evidence of either to inhibit innovation.

This view was challenged by architects who denied they were either closed or intellectual as a profession. Organized as they were, architects could be said to be collaborative, whereas academics were very unlikely to face the consequences of their actions in this way.

It was agreed that education and the professional bond with the public is difficult to run successfully because design is essentially the solution of particular problems, and general skill is required to draw designs to the content of technical lecture courses. There is a danger that the architect will become a designer, ignorant of both principle and practice.

Since the 1928 conference, which emphasized the studio side of architectural education, the schools have been tempted, in each aspect of the subject which should properly be learned in practice, for their part, the architectural practice here had some unrealistic expectations of the skills which graduate students could be expected to have. In most cases, architects are unable to make use of the skills which they have learned.

To establish a balance between academic education and architectural training, the present system of five years in university, plus a period of office experience before the professional practice examination, should be replaced by an arrangement in which students should only three years in university, followed by three years of training in an office on the part-time pattern, as in articles in the legal profession.

This would benefit the profession and the schools alike, by giving it a more fundamental role in training, thus ensuring competence from the beginning of professional training, and allowing them to concentrate on their own research. The importance of research is an aspect of architectural education which has tended to be ignored in debates about the profession. The existence of such a professional body could, in fact,

serve to suppress salient social interests, giving prominence to scientific and technical matters, while reducing students to the very passive recipients of a prescribed education.

Should we follow

In its consideration of particular professions, the colloquium had heard that the education of doctors was much better adjusted to professional needs than was the case with architects and lawyers. It might be reasonable to anticipate some discontinuity between the teaching of science and technology and the subsequent careers of graduates in these subjects, since the range of professional opportunities is much wider than in the case with law, medicine or architecture.

However, addressing the fifth session of the colloquium, Professor Sir Sam Edwards was in no mood to excuse this discontinuity. He lamented the lack of serious consideration which had been given, inside and outside the universities, to the supply of suitably qualified scientists, technologists and engineers for British industry.

The defined professions, in terms of three groupings of highly-skilled people: ● Doctors, dentists, vets, lawyers, pharmacists and some civil engineers, whose skills are sufficiently important and established to require state authorization and control over rights to practise.

● Skilled occupations with their own associations which might wish to monopolize practice but which are not authorized and regulated by the state. Among this group, associations of lower-skilled workers are often older and more influential than those of higher-skilled workers.

On the subject of what training would a proper education for architects, Dr Dean Hawkes, of the Royal Institute of British Architects, said that there was a risk of important technical aspects of training becoming neglected in favour of the fashionable rhetoric of "service to society" and "social responsibility". Was there a danger of entrusting such responsibility to a group of people who could hardly represent it?

Another contributor doubted that an architect could be taught to discriminate between the proper and improper applications of his professional skills. The architect's relationship with the client was comparable to that of the doctor, in that it was a function of other social relationships in adjudicating "social interests".

Mr Gordon responded that many points of technical detail in architecture were legally regulated, but it would be difficult to specify a list of them. He said that in a South African city might be an unscrupulous architect who would take advantage of the RIBA code of ethics to make a fortune. He said that the RIBA code of ethics was not a guarantee of expertise to clients. Mr Gordon pointed out that employing an architect leads indirectly to a product, which makes the fiduciary aspect of relationships with a client very important. The development of RIBA was a logical consequence of this, representing the development of better services to the community.

Their training is a fraught task, they are traditionally supposed to have three years of university followed by a period of "clinical" work, using the medical analogy in industry, qualifying in less than six years. There is much more about whether more, or a "clinical" period should be spent in industry, or whether industry should recruit directly.

Most engineers are not, in fact, being trained in industry or indeed anywhere. Even so there is a reluctance to think of more than three years in university as a proper education. The engineers have a right to a professional status, then a qualification from a professional body; but as this would require an authorization and control in effect, mean that the universities would confer professional status as is now the case with doctors.

Considering prospects at the bridge, Sir Sam noted a reluctance to teach at the postgraduate level, a tendency which is reflected in the relatively low postgraduate standards in the universities. It seemed to him that Britain should follow the EEC pattern, in which full responsibility for technological training falls on the universities. It is doubtful if well-qualified graduates could be expected to do this.

On the subject of science graduates in industry, Sir Sam said that chemists enjoyed a very good reputation in the relatively prosperous chemical industry. This was less true of physics where, for example, students of high-grade physics might have to find jobs in the electronics or computer industries. Mathematics teaching bore no evident relation to the relationship to subsequent occupations, although mathematics really gained employment. Biologists and chemists, despite their numbers, fared surprisingly well.

It was widely stated by Indian technologists that engineering teaching related purely to industry; it was a paradoxical situation that the point of view of the industry was more students were not absorbed into engineering industries, and whether this was a matter of oversupply or undersupply.

Problems in engineering became the central theme of discussion, with the pattern of education, the structure of the profession and the difficulties of British industry. Sir Sam felt that the higher salaries and status of German engineers was a function of the greater productivity of industry there, but it was notable that the German had invested in sophisticated technology, whereas the British had not. The proliferation of bureaucratic tasks faced by British industry was a large proportion of graduates engineers into administrative work. More Germans were engaged practically in the work for which they had been trained.

The association of engineering with practice rather than theory raised some heated debate about the social status of engineers. One member drew attention to the objective

the EEC pattern?

and operational meanings of knowledge, suggesting that technology had become too much associated with the latter, and science with the former. Universities could play a vital role in reinforcing both aspects of knowledge, perhaps by refreshing the objective, scientific education of engineers regularly during the course of their careers.

Mr Sam agreed that the sharp distinction often made between science and technology was a false one—as was evident in the astonishingly unlikely realm of agricultural development.

A suggestion that engineers could be somewhat paranoid about their name evoked a lively response from engineers present, who pointed out that they, unlike the scientists, had the responsibility of actually "delivering the goods". The way that Britain persistently under-valued its engineers was partly responsible for current industrial and economic failure.

A contributor wondered why technical and managerial progress were apparently greater in agriculture than in other sectors. It was suggested that, from an engineering point of view, agriculture could be regarded with greater ease than, for example, the car industry. Other speakers agreed that labour conditions in agriculture were relatively depressed, and relationships with management more compliant. Sir Sam agreed that such research in agriculture provided the small farmer with developmental opportunities which were simply not available to, say, British Leyland.

There was some comment on the strength of the technical and engineering professions, compared with other such as doctors, lawyers and architects. Sir Sam said that while the qualifications given by the engineering bodies were useful, they did not give an exclusive right to practise. If an engineer felt that his association was not serving his interest he would probably opt to leave. The colloquium agreed that the engineers' problems rested, not so much in the weakness of their own professional organization, as in "dependencies in the economy of large, as well as in the maladjustment of education to the demands of industry."

In the final session Sir Sam reiterated his concern that very little attention had been paid to the planning of an appropriate education for scientists and technologists. He wondered whether the universities should worry about what subjects their students chose. Numbers of mathematicians are actually employed as engineers, so why should more of them not be trained as computer scientists to start with? It was lamented that such issues were not even discussed.

A member felt that educational planners did discuss such issues as whether there should be a balance of university places in favour of science rather than arts subjects. The cost of a degree was also a factor for medical students who also took broad specifications for the distribution of students among specific subjects was viewed very vaguely, and the balance is not held to master, but because manpower forecasting is notoriously fallible (although often criticized unfairly).

Professor Moses Finley remarked that the purpose needs in the humanities could fairly be contrasted as ill; how, then, could university places in these subjects be planned?

Mrs Jean Flinn wanted to know if it really mattered that computer engineers had been trained as mathematicians. Other speakers shared Sir Sam Edwards' view that it did; the British university system was deliberately resistant to change and it took far too long for courses to respond to new needs—for example, for probation officers. It was not good enough to argue that technologies such as computing changed too fast to plan appropriate university courses, because the need for mid-career retraining was always present.

Educational planning raised the issue of how much freedom could be allowed to students in choosing courses. It seemed neither practicable nor morally desirable to restrict students for computer courses. The opportunity which had been given to open university students to choose very freely among combinations of subjects had produced disappointing results: a neglect of mathematics, science and technology, and a reluctance in study unusual groups of subjects. The factors which determined the student's choice seemed very vague and very randomized.

A Russian member advocated the approach taken in the Soviet Union, where a more broadly-based university training increased the range of employment opportunities available to the individual. In this view intellectual, pedagogical and political-economic problems could be solved simultaneously. Another speaker observed that the problems of course and career choice would probably be exacerbated under new EEC regulations in which professional qualifications were becoming more specific.

Discussion about whose responsibility it might be to assess wider needs and plan curriculum change inevitably returned the debate to the rule of the professional associations and their apparent complicity with the universities. Could the individual student have freedom of choice from a liberal university prospectus when recruitment to the professions was in the hands of conservative, hierarchical, monopolistic bodies?

Several speakers felt that faith in the virtues and utility of a time of education as a mental discipline was misplaced. On the subject of university education, a member remarked that the RAF wanted to recruit graduates only, although it was probably second to none. The colloquium agreed that a new emphasis had to be found, inside or outside the universities, for practical and vocational aspects of professional training. But it felt defence, which was for so long independent of the universities, now required more emphasis on academicism. Perhaps this could be attributed to the complex managerial, economic and political demands of senior officers. However, it was not the case that the RAF did not aim to recruit graduates it could not compete for suitable personnel, and would be weakened as a profession.

It was evident that the colloquium tended to focus on the relationship between the professions and the universities in Britain, rather than on the more complex issue of the careers of university graduates. The various cases considered revealed some striking contrasts in terms of the adequacy, efficiency, and social desirability of the relationship between the professions and the universities. An important question which remained was what, if anything, the universities can do to change this relationship.

The number and variety of professional pressure groups is very striking. They are all interested in enhanced status and better training facilities, and are in control of, or influence over, the universities. Compared with their European counterparts, the professional chartered bodies are very influential, conferring social status and the belief in work ethics, and in regular qualifications and entry to the professions implies the need to control theoretical and practical aspects of training, and examinations. Their increasing dependence on the universities has not diminished their desire for control.

The chartered bodies have tried to increase the proportion of their university-educated members, and to get more out of the universities in the form of longer courses, more postgraduate and post-experience training, more research and, to some extent, more suitable curriculum. Not only are the professions proliferating, but more of their members are getting full-time higher education.

Medicine is probably the profession which is most successfully integrated with the universities, mainly by way of the technical hospitals; those governing the profession also tend to govern the medical faculties. This may lead to some conservatism, and a resistance to new inputs from other disciplines.

As with most other professions, lawyers are increasingly controlled by large corporate bodies rather than by individuals, a situation which has fostered concern, particularly among young doctors, about their role in society. It is not clear whether the universities might be able to help, or whether the profession is a cause or a consequence of the diminished status of engineers today. Certainly, an argument for weaker or even less selfish professional bodies is not necessarily an argument for progress.

The cases considered by the colloquium do not suggest that the professions always know to the character of professional bodies. Mrs Flinn's initial observation that the professions depend for their survival on theoretical developments, which emanate mainly from the universities, was not seriously challenged. However, it is clear that the universities do not act autonomously in their pursuit of knowledge, nor should they. It would be romantic to suggest that the professors are always engaged in the pursuit of "truth" and that virtuous professions and a healthy society can be derived from this search.

While teaching and research in the universities continue to respond to a wide range of interests, professional and other, the pursuit of knowledge will remain very subjective. Moreover, what goes on in universities is in large measure a product of the professional interests of academics themselves. Esoteric research which may be the passport to academic prestige is not often of practical value to the professions or the public at large.

The status of academics in a discussion of the professions remains ambiguous. The opinion that teachers cannot properly be regarded as professionals was a constant theme. If this is so, the contradiction suggested in the title of the colloquium may be very apposite. Although some might regard the professors as distinct from the professionals, their complicity was seldom in doubt. Where the relationship was considered to be weak, as in the case of the lawyers, the expressed desire was for rapprochement.

Whether or not this alliance was in the best interests of society was repeatedly questioned conspicuously by Darwin students. Some suggested that a discussion of this subject in a Cambridge graduate college, led by professors and professionals themselves, could hardly aspire to impartiality or objectivity. Although the professors' complicity to some degree, the postgraduates were quick to identify selfish or narrow interests represented by speakers at the colloquium. Their needling comments could cause a swift closing of professional ranks, turning attempts at candid self-examination into strenuous self-defence. At times this response proved amusingly eloquent, more so than the direct attacks on professional postures in the rhetoric of class conflict.

At times, the students could watch wryly, and with a degree of detachment, while the professors and professionals articulated their feelings of insecurity and their anxieties about their own position in a changing world. For their part, the colloquium leaders could take little comfort from the knowledge that very soon the post graduates would also be experiencing the same doubts and anxieties.

What can universities do?

had played a strictly passive role in their relationships with the professions. They may be more guilty of sins of omission than commission, particularly their reluctance or inability to respond belkily to new demands in a rapidly changing world. It may be fair to accuse them of structuring their teaching around narrow theoretical preoccupations rather than matters of general, practical concern.

However, it is also true that they have not been exposed in any great measure to the pressures to be seen as attacking and defended with equal vigour in discussion, but it is surely obvious that their prime purpose is to pursue the interests of their own members; they cannot properly represent the interests of society at large.

In so far as the professions are the product of social change and the progressive division of labour in society during the nineteenth and twentieth centuries, so they have some to represent sectional interests in society.

Some of them have acquired great strength and have utilised themselves with the dominant interest in Britain today. Others have remained relatively weak; it is difficult to know whether the lack of strong character in the engineering profession is a cause or a consequence of the diminished status of engineers today. Certainly, an argument for weaker or even less selfish professional bodies is not necessarily an argument for progress.

The cases considered by the colloquium do not suggest that the professions always know to the character of professional bodies. Mrs Flinn's initial observation that the professions depend for their survival on theoretical developments, which emanate mainly from the universities, was not seriously challenged. However, it is clear that the universities do not act autonomously in their pursuit of knowledge, nor should they. It would be romantic to suggest that the professors are always engaged in the pursuit of "truth" and that virtuous professions and a healthy society can be derived from this search.

While teaching and research in the universities continue to respond to a wide range of interests, professional and other, the pursuit of knowledge will remain very subjective. Moreover, what goes on in universities is in large measure a product of the professional interests of academics themselves. Esoteric research which may be the passport to academic prestige is not often of practical value to the professions or the public at large.

The status of academics in a discussion of the professions remains ambiguous. The opinion that teachers cannot properly be regarded as professionals was a constant theme. If this is so, the contradiction suggested in the title of the colloquium may be very apposite. Although some might regard the professors as distinct from the professionals, their complicity was seldom in doubt. Where the relationship was considered to be weak, as in the case of the lawyers, the expressed desire was for rapprochement.

Whether or not this alliance was in the best interests of society was repeatedly questioned conspicuously by Darwin students. Some suggested that a discussion of this subject in a Cambridge graduate college, led by professors and professionals themselves, could hardly aspire to impartiality or objectivity. Although the professors' complicity to some degree, the postgraduates were quick to identify selfish or narrow interests represented by speakers at the colloquium. Their needling comments could cause a swift closing of professional ranks, turning attempts at candid self-examination into strenuous self-defence. At times this response proved amusingly eloquent, more so than the direct attacks on professional postures in the rhetoric of class conflict.

At times, the students could watch wryly, and with a degree of detachment, while the professors and professionals articulated their feelings of insecurity and their anxieties about their own position in a changing world. For their part, the colloquium leaders could take little comfort from the knowledge that very soon the post graduates would also be experiencing the same doubts and anxieties.

HARRAP BOOKS

congratulate

OXFORD UNIVERSITY PRESS

on their quinquenary

HARRAP'S Concise

FRENCH AND ENGLISH DICTIONARY

Harrap have 60 years' experience in compiling French and English dictionaries. Now we proudly claim to have the finest range in the world including the most up-to-date Concise French and English dictionary.

HARRAP BOOKS

182-184 High Holborn, London WC1V 7AX

Publication: 25th May £4.95n

BOOKS

Taxing problem for economists

Grant aid

This mode itself felt in various ways. The traditional providers of education, the churches, set up special agencies—the National Society, the Catholic Poor Schools Society, the American Board of Foreign Missions, the American Bible Society—to an effort to meet the rapidly burgeoning needs. Their inability to cope—even with Exchequer aid—led eventually to the public provision of school places after 1870. Government school boards "to fill up the gaps" as Forster put it. From the middle of the nineteenth century the state also provided grant aid for the teaching of technical and scientific subjects through the Science and Art Department.

R. W. R. Price

So much is not likely to be disputed; the report's achievement here is to define the principles of a good system and the practices of a bad one (the British) more clearly than before, and in such a

The sin of striking

important contribution comes from second wage-earners in the family. Even in long strikes, most strikers receive little or no supplementary benefit, and the contribution of income tax rebates is modest.

In 1971 the Conservative Government altered the rules under which strikers' families receive supplementary benefit. (Strikers themselves are eligible only in dire need.) Previously the strikers' income (for example from union strike pay or income tax rebates) was taken into account when their family's entitlement up to the amount of benefit he would have received if eligible. In 1971 that figure was £4.85. The Government substituted a "disregard" of £1. Their intention was to reduce what was then termed the incentive to strike, and to transfer part of the cost of official strikes to the strikers. The cost of official strikes in which strike pay is normally provided from the state to the unions.

These findings do not entirely dispose of the "state subsidy theory of erikes", Supplementary benefit could be very important to the stricker with no savings, a large family, and no second wage. Without supplementary benefit such strickers might be the weak point in union solidarity. The further assessment of the impact of supplementary benefit on strikes Gennard therefore turns to indirect evidence. The "state subsidy" theory became popular at the end of the sixties when the amount of supplementary benefit rose sharply because of inflation. It was also in the average length of strikes. But why were strikers staying out longer? Gennard's admirable

That is not what happened. In 1972 days lost through strikes far exceeded the total for any other year since 1926, and 1974 would have been a record but for 1972. In each of those two years the major cause was in the coal and steel industries. In 1972, however, although both were officially closed, no strikes pay. In both years supplementary benefit for strikers' families was several times the total for any year before 1971, and well in excess of the amount provided by the unions. The annual figures do not revert anywhere near to Britain's postwar normal until 1976, the year after the Labour Government had passed the dere-

account of the history of public revolt in strikes shows that it has been available for strikers' families since the nineteenth century. Since 1950 the average parent of strikers' families has no more than kept pace with average earnings.

Why should the availability of benefit suddenly tempt strikers to stay out longer in 1970 and 1971? The answer is that the average length of strikes was due to other factors. There was a close positive relationship between the length of strikes and the level of unemployment; and there were also other factors at work such as confrontation between the Heath government and the unions.

What went wrong? Whatever the legislators had had in mind in 1971, it was not evidence, for the facts were not known. Soon afterwards, however, several academics, and notably John Geogard, set about finding them; and in this valuable book he has brought the results together.

income policy. The level of supplementary payment to strikers was consequence, not a cause, of longer strikes.

For those who are still unconvinced, he disposes of the myth that it is only in Britain that strikers' families are entitled to public assistance. The methods of

In 1969 strikes pay *plus* supplemental benefit paid to strikers and their families came to less than \$2 a week. No striker could live on that. Could he maintain a family? What did strikers live on? The great majority of strikers just only a few days and the strikers have their own money to pay them, especially on most men and women who paid money in arrears and there still didn't pay packet to come after the strike has started. Supplemental benefit is normally available only after two weeks, or four weeks for those on monthly salaries. Surveys show that in England and others show that in long strikes, the strikers and their families live mainly on their savings, and the next most

assistance vary from country to country, but civilized countries do not leave strikers' families to starve. It also forecasts a serious consequence of the various industrial proposals for curtailing benefit for strikers' families which continue to come forward, and indicates that they are unlikely to fulfill their authors' intentions.

Nevertheless Gennard's persuasive book may not put an end to strike schemes. For at the end of it the reader cannot but come to the conclusion that the main aim of their authors is not to reduce strikes, but to punish strikers and their families for the sin of striking.

Hugh Clegg

Conflicting objectives

**Business in an international
Environment**
by Yair Aharoni with Clifford Boden
Macmillan, £10.00
ISBN 0 333 16280 5

It was Professor T. T. Potersen who maintained that it was better to teach principles than could be applied in varied situations than to spend large amounts of the syllabus to develop students' understanding by means of case studies. This collection of case studies is concerned with the relations between business, politics and the community. They are interesting, meagre and varied, and are set in a number of different countries; yet Professor Potersen's observation comes to mind.

that business is but one element in an interactive society. Within this theme, cases are grouped to illustrate the significance of interest groups, the problems of assessing international political risks, the firm's role in the community and the effect of government decision making on the consumer.

The case, obviously concerned with the operations of Lego A/s is rather like the fairy story that one might expect to emerge from Hans Andersen country, Lego (for gods, Danish meaning 'leg well'). Is indeed the building block, suitable to children's toy company operates in Billund, a very small town in Denmark, a very small company grown to dominate the business of toys for the good, but as Mr Christensen explained: "I'm not certain that it's in the company's best interest... or the town's... to grow any larger... Being dominant has its obligations."

Many stories are true in business. Businessmen are now on the way to be kidnapped. On April 10, 1972, the managing director of Fiat in Argentina was killed after being held for three weeks by kidnappers. His company could scarcely be blamed for a happening even which it had no control, yet the student masses of all companies have to assess political risks. In fact, this is one of the hazards that must be faced in investing in the less developed countries. In 1969,

In another case study, Kendall, the general manager of Lincoln Mining and Manufacturing in Tib-

tielbo not in the least disappointed at the suggestion from New York that a younger man he sent to take over the operation. After his experiences he was worn out. He had been told that it was impossible for him to obtain the position of the company that local managers should keep themselves and their operations free from involvement in the political affairs of the country. He had been told that the country was overwhelmed by corruption. In the political balance of power, in the country which paid master for the management of the company, the manager might be the voider whether ordinary business or political. He was trained to recognize and interpret political situations of great complexity. Could even a career diplomat cope, let alone a coping with a scandalous complexity, a few weeks in the engagement of a business Institute of Medicine, where the authors took could merely office.

Of general interest is the point of view from which the assemblers of the data look at the intersection. Is it between business and society, or between the individual entrepreneur and his own way (if ever, they existed) are almost certainly gone. Organizational values, the outcomes which cannot be maintained outside the organization, the odds of the entrepreneur's special values in the years to come pressures will grow in defiance of consumers' interests, environmental factors will modify the use of technology, there will be a change in the employment of the individual, insistence on a national use of social resources and growing demands to pay attention to community relations; workers will be asked to do their work and insist on participation in decisions; while young managers will demand a worthwhile work as well as high salaries. Will even Lussanini be able to educate businessmen to a new way of doing things? Will not the new way itself be frustrated by the nature of the objective function that

Perhaps in the last report the justification for this collection of case studies lies in the fact that few discernible principles can be applied in the areas covered by the studies. The case studies are almost always difficult to generalize and usually unpredictable. The main hope for the development of principles may lie in attempts to arrive at some acceptable approach to the reconciliation of the conflicting responsibilities of businessmen, to shareholders, employees, corporate objectives and society. If this collection of case studies encourages business men to this, it has served its purpose.

problems it will serve its purpose.

Birmingham on the national politics of education is clearly traced. The considerable impact of educational leaders themselves on political life in these and other swarming urban concentrations is carefully and most usefully developed in this paper.

Dr Stephen's paper, "Illiteracy and Schooling in Provincial Towns" incorporates research findings which illustrate just how cautiously the Government needs to be handled by the district. The paradigms of the comparative approach are set alongside an assessment of its value, "we can discern no hope low, no easy categorization, but only urgency against which to set the uneasy history of each particular town."

In his contribution, Professor Cohen, of the University of California, Los Angeles, has taken a broad look at the development of the history profession in the United States, and at the attitudes of historians of education. There are here too, often, the history of education is particularly liable to be treated, not as a field of educational interest, but as a battlefield rather as a quarry in which materials may be sought for use in today's controversies. In both camps, history teachers in colleges and universities, dogmas of education are peculiarly liable to be attacked. Loyalties claimed by the conflicting demands of past and present. "On the one side their passion for understanding points both to the commitment to objectivity, neutrality, and the scientific ideal," and to the recent demands of teaching future teachers "plays upon their desire, to get out of history some lessons that will be of use to the world." It is this latter demand, Professor Cohen says, that has done much to encourage a more scholarly approach to the subject since its foundation a decade ago, and this volume of proceedings contributes to stimulating and valuable contributions.

Peter Gosdan

MORRIS

Just published

**William Morris,
The Marxist Dreamer
Paul Meier / \$28.50**

2 vols.
Sixties, seventies, and eighties

HARVESTER PRESS

Interpreting the remains of ancient civilizations

very lightly sketched in and an opportunity to discuss Nubia in the Neolithic period as a frontier area when two major agricultural zones (wheat/barley and corn/pumpkin/beans) were divided. The Nile valley taken. This is a pity for, in general terms it was perhaps between 6000 and 3000 BC that Nubia and the nearby savannahs was most significant in the whole continent.

The last part of the book which deals with the Moslem period in the Republic of the Sudan (not Nubia in Nubia), must have been the most difficult to write. Archaeological evidence is almost nonexistent. The decision in 1959 not to examine early Islamic sites in Nubia before they were destroyed seems quite extraordinary, and since this is coupled with an absence of archaeological work south and limited archaeological work north, it was perhaps too early for a study of this kind to be attempted. Adams has synthesized existing theories but cannot add to them.

The book is supported by extensive notes and maps, line drawings, maps, good photographs and a useful index.

Professor Adams dedicates his book to C. A. Rolsnes and it is pleasant to note that he is not blaming the faults of this pioneer placed on it. To call him the "father of Nubiology" if such a subject exists may be an exaggeration and the book might be given with recognition to Professor Adams himself.

John Alexander

... ..

1. *Journal of the American Medical Association*, 1997; 277: 1033-1037.

ST. KILPATRICK & KILPATRICK

BOOKS

The dawn of the affluent society

D. W. Bebbington

Polytechnics continued

ULSTER COLLEGE

THE NORTHERN IRELAND POLYTECHNIC

Faculty of The Arts

Principal Lecturer in Music

Salary Scale: £6,432-£7,134/£8,070

The person appointed will provide academic leadership for the Music Division and will have a general responsibility for musical activities in the Polytechnic.

The Polytechnic is a direct grant institution with an independent Board of Governors. It opened in 1971 and now has a student population of some 7,100. It has extensive new purpose built accommodation, including 750 residential places on the 114 acre campus overlooking the sea at Jordanstown, a pleasant and quiet residential area. There is a scheme of assistance with removal.

Further particulars and application forms which must be returned by May 1 may be obtained by telephoning (01223) 65311, ext. 2210, or writing to: The Education Office, Ulster College, The Northern Ireland Polytechnic, Shore Road, Newtownabbey, Co. Antrim BT37 0DB.

Department of Economics and Public Administration

Lecturer II/Senior Lecturer in Politics

Applications are invited for the above position to teach Political Theory up to the degree level and to assist with Irish Politics and Government.

Salary: £3,775-45,855 (Gr.) £6,417 plus supplements of £492 p.a.

Application form and further details available from the Chief Administrative Officer, Trent Polytechnic, Quilton Street, Nottingham. Closing date 1st March, 1978.

TRENT POLYTECHNIC NOTTINGHAM

Colleges of Education

STRANMILLIS COLLEGE BELFAST

Principal, James Pomeroy, MA, BSc, MEd

(Amended Advertisement)

Stranmillis College is wholly concerned with the preparation of men and women for teaching in primary, secondary and tertiary schools, initially through BEd Degree Courses of 3 and 4 years. There is a three-year Certificate Course in three subjects only, and a postgraduate course. The College is non-denominational; there is no religious test. In September next there will be about 1,000 students.

The College is pleasantly situated in an attractive wooded estate of some 45 acres, in a quiet residential neighbourhood on the southern outskirts of the City of Belfast. New building projects to the value of £1.5m have been completed in recent years.

Lecturer or Senior Lecturer in Handicraft

Applications are invited from graduates with good teaching experience and informed understanding of contemporary attitudes to craft, design and technology, in teaching courses leading to the Certificate of Education and the BEd General Degree with Handicraft as a main subject. A qualification in Applied Science would be an added recommendation, and other areas of expertise would be considered.

Salary Scale: £3,279 to £6,417 plus £492 under first two stages of the pay scale, with a further review expected from April 1. Placing initially according to experience.

Assistance with removal expenses from outside Northern Ireland.

A form of application and further information about the College and the appointment should be obtained from: The Secretary, Stranmillis College, Belfast BT9 5BY. Applications should be received not later than Friday, April 14, 1978.

Awards

THE BRITISH INSTITUTE OF PERSIAN STUDIES

Award of Fellowships and Bursaries for 1978/79

Applications are invited from British and Commonwealth subjects for a number of Fellowships or Bursaries. These grants are intended to assist scholars who wish to pursue research in any field of Persian Studies concerned with the area, archaeology, history, literature, linguistics, philology and cognate subjects.

Grants are worth up to £2,500 for periods of up to nine months in 1978, and are for study in any field mentioned above. They will be available this year from 1st September, 1978. Successful candidates may be awarded for a further period. Successful candidates will be expected to participate in a medical insurance scheme, and to make their own arrangements for travel to Iran. Accommodation will be provided at the Institute Hotel in Tehran.

Full details and application forms may be obtained from the Secretary, 25 Cranborne Road, Richmond, Surrey TW9 1AB, 610.

Research

EQUAL OPPORTUNITIES RESEARCH

The EOC/SSRC Joint Panel on Equal Opportunities Research is mounting a major programme of research on the theme of women and underachievement. The Panel is primarily interested in problems of employment, education and training.

Social scientists interested in these and related topics are invited to send a brief statement of research interests, a curriculum vitae, and, if possible, an outline research proposal, including estimated costs (2000 words or less). These may be used by the Panel as a basis for inviting more detailed proposals.

Research findings received by 17 April can be considered by the Panel during the Summer. Research findings in the considered by the Panel during the Autumn may be submitted by 31 August 1978.

Further information, including a statement of the Panel's priorities can be obtained from:

The Secretary, EOC/SSRC Joint Panel,
Research Initiative Division
Social Science Research Council
1 Temple Avenue, London EC4Y 0BD
Tel: 01-353 5252 Ext. 53

Colleges of Higher Education

Readvertisement

FACULTY OF CREATIVE ARTS

Senior Lecturer in Drama

(Salary £5,523-£6,509)

A vacancy exists for a Drama specialist capable of leading the Drama course pattern in the B.A. (Hons) Creative Arts degree programme.

Candidates should have professional acting or directing experience and academic qualifications appropriate to teaching honours degree courses.

Please write for further information to: The Deputy Director, Crews + Alsager College of Higher Education, Thessall Road, Aldenham, Stoke-on-Trent, ST7 2HL.

Closing date for receipt of application forms: Friday, 7th April, 1978.

Crews + Alsager College of Higher Education

General Vacancies

CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE DUBLIN COLLEGE OF CATERING

Cathal Brugha Street, Dublin 1

HOTEL AND CATERING ADMINISTRATION DEPT.

Applications are invited for the following part-time whole-time posts

(a) LECTURER 1—BUSINESS ADMINISTRATION

(b) LECTURER 1—ECONOMICS

The College offers a wide range of courses from full professional degree (awarded by University of Dublin) to apprentice Craft courses. The successful candidates will be involved mainly with the Degree and Diploma courses.

QUALIFICATIONS

(1) An appropriate University Degree (first or second class honours) or

(2) An appropriate University Degree (first or second class honours) or

(3) An appropriate University Degree (first or second class honours) or

(4) An appropriate University Degree (first or second class honours) or

(5) An appropriate University Degree (first or second class honours) or

(6) An appropriate University Degree (first or second class honours) or

(7) An appropriate University Degree (first or second class honours) or

(8) An appropriate University Degree (first or second class honours) or

(9) An appropriate University Degree (first or second class honours) or

(10) An appropriate University Degree (first or second class honours) or

(11) An appropriate University Degree (first or second class honours) or

(12) An appropriate University Degree (first or second class honours) or

(13) An appropriate University Degree (first or second class honours) or

(14) An appropriate University Degree (first or second class honours) or

(15) An appropriate University Degree (first or second class honours) or

(16) An appropriate University Degree (first or second class honours) or

(17) An appropriate University Degree (first or second class honours) or

(18) An appropriate University Degree (first or second class honours) or

(19) An appropriate University Degree (first or second class honours) or

(20) An appropriate University Degree (first or second class honours) or

(21) An appropriate University Degree (first or second class honours) or

(22) An appropriate University Degree (first or second class honours) or

(23) An appropriate University Degree (first or second class honours) or

(24) An appropriate University Degree (first or second class honours) or

(25) An appropriate University Degree (first or second class honours) or

(26) An appropriate University Degree (first or second class honours) or

(27) An appropriate University Degree (first or second class honours) or

(28) An appropriate University Degree (first or second class honours) or

(29) An appropriate University Degree (first or second class honours) or

(30) An appropriate University Degree (first or second class honours) or

(31) An appropriate University Degree (first or second class honours) or

(32) An appropriate University Degree (first or second class honours) or

(33) An appropriate University Degree (first or second class honours) or

(34) An appropriate University Degree (first or second class honours) or

(35) An appropriate University Degree (first or second class honours) or

(36) An appropriate University Degree (first or second class honours) or

(37) An appropriate University Degree (first or second class honours) or

(38) An appropriate University Degree (first or second class honours) or

(39) An appropriate University Degree (first or second class honours) or

(40) An appropriate University Degree (first or second class honours) or

(41) An appropriate University Degree (first or second class honours) or

(42) An appropriate University Degree (first or second class honours) or

(43) An appropriate University Degree (first or second class honours) or

(44) An appropriate University Degree (first or second class honours) or

(45) An appropriate University Degree (first or second class honours) or

(46) An appropriate University Degree (first or second class honours) or

(47) An appropriate University Degree (first or second class honours) or

(48) An appropriate University Degree (first or second class honours) or

(49) An appropriate University Degree (first or second class honours) or

(50) An appropriate University Degree (first or second class honours) or

(51) An appropriate University Degree (first or second class honours) or

(52) An appropriate University Degree (first or second class honours) or

(53) An appropriate University Degree (first or second class honours) or

(54) An appropriate University Degree (first or second class honours) or

(55) An appropriate University Degree (first or second class honours) or

(56) An appropriate University Degree (first or second class honours) or

(57) An appropriate University Degree (first or second class honours) or

(58) An appropriate University Degree (first or second class honours) or

(59) An appropriate University Degree (first or second class honours) or

(60) An appropriate University Degree (first or second class honours) or

(61) An appropriate University Degree (first or second class honours) or

(62) An appropriate University Degree (first or second class honours) or

(63) An appropriate University Degree (first or second class honours) or

(64) An appropriate University Degree (first or second class honours) or

(65) An appropriate University Degree (first or second class honours) or

(66) An appropriate University Degree (first or second class honours) or

(67) An appropriate University Degree (first or second class honours) or

(68) An appropriate University Degree (first or second class honours) or

(69) An appropriate University Degree (first or second class honours) or

(70) An appropriate University Degree (first or second class honours) or

(71) An appropriate University Degree (first or second class honours) or

(72) An appropriate University Degree (first or second class honours) or

(73) An appropriate University Degree (first or second class honours) or

(74) An appropriate University Degree (first or second class honours) or

(75) An appropriate University Degree (first or second class honours) or

(76) An appropriate University Degree (first or second class honours) or

(77) An appropriate University Degree (first or second class honours) or

(78) An appropriate University Degree (first or second class honours) or

(79) An appropriate University Degree (first or second class honours) or

(80) An appropriate University Degree (first or second class honours) or

(81) An appropriate University Degree (first or second class honours) or

(82) An appropriate University Degree (first or second class honours) or

(83) An appropriate University Degree (first or second class honours) or

(84) An appropriate University Degree (first or second class honours) or

(85) An appropriate University Degree (first or second class honours) or

(86) An appropriate University Degree (first or second class honours) or

(87) An appropriate University Degree (first or second class honours) or

(88) An appropriate University Degree (first or second class honours) or

(89) An appropriate University Degree (first or second class honours) or

(90) An appropriate University Degree (first or second class honours) or

(91) An appropriate University Degree (first or second class honours) or

(92) An appropriate University Degree (first or second class honours) or

(93) An appropriate University Degree (first or second class honours) or

(94) An appropriate University Degree (first or second class honours) or

(95) An appropriate University Degree (first or second class honours) or

(96) An appropriate University Degree (first or second class honours) or

(97) An appropriate University Degree (first or second class honours) or

(98) An appropriate University Degree (first or second class honours) or

(99) An appropriate University Degree (first or second class honours) or

(100) An appropriate University Degree (first or second class honours) or

(101) An appropriate University Degree (first or second class honours) or

(102) An appropriate University Degree (first or second class honours) or

(103) An appropriate University Degree (first or second class honours) or

(104) An appropriate University Degree (first or second class honours) or

(105) An appropriate University Degree (first or second class honours) or

(106) An appropriate University Degree (first or second class honours) or

(107) An appropriate University Degree (first or second class honours) or

(108) An appropriate University Degree (first or second class honours) or

(109) An appropriate University Degree (first or second class honours) or

(110) An appropriate University Degree (first or second class honours) or

(111) An appropriate University Degree (first or second class honours) or

(112) An appropriate University Degree (first or second class honours) or

(113) An appropriate University Degree (first or second class honours) or

(114) An appropriate University Degree (first or second class honours) or

(115) An appropriate University Degree (first or second class honours) or

(116) An appropriate University Degree (first or second class honours) or

(117) An appropriate University Degree (first or second class honours) or

(118) An appropriate University Degree (first or second class honours) or

(119) An appropriate University Degree (first or second class honours) or

(120) An appropriate University Degree (first or second class honours) or

(121) An appropriate University Degree (first or second class honours) or

(122) An appropriate University Degree (first or second class honours) or

(123) An appropriate University Degree (first or second class honours) or

(124) An appropriate University Degree (first or second class honours) or

(125) An appropriate University Degree (first or second class honours) or

(126) An appropriate University Degree (first or second class honours) or

(127) An appropriate University Degree (first or second class honours) or

(128) An appropriate University Degree (first or second class honours) or

(129) An appropriate University Degree (first or second class honours) or

(130) An appropriate University Degree (first or second class honours) or

(131) An appropriate University Degree (first or second class honours) or

(132) An appropriate University Degree (first or second class honours) or

(133) An appropriate University Degree (first or second class honours) or

(134) An appropriate University Degree (first or second class honours) or

(135) An appropriate University Degree (first or second class honours) or

(136) An appropriate University Degree (first or second class honours) or

(137) An appropriate University Degree (first or second class honours) or

(138) An appropriate University Degree (first or second class honours) or

(139) An appropriate University Degree (first or second class honours) or

(140) An appropriate University Degree (first or second class honours) or

(141) An appropriate University Degree (first or second class honours) or

(142) An appropriate University Degree (first or second class honours) or

(143) An appropriate University Degree (first or second class honours) or

(144) An appropriate University Degree (first or second class honours) or

(145) An appropriate University Degree (first or second class honours) or

(146) An appropriate University Degree (first or second class honours) or

(147) An appropriate University Degree (first or second class honours) or

(148) An appropriate University Degree (first or second class honours) or

(149) An appropriate University Degree (first or second class honours) or

(150) An appropriate University Degree (first or second class honours) or

(151) An appropriate University Degree (first or second class honours) or

(152) An appropriate University Degree (first or second class honours) or

(153) An appropriate University Degree (first or second class honours) or

(154) An appropriate University Degree (first or second class honours) or

(155) An appropriate University Degree (first or second class honours) or

(156) An appropriate University Degree (first or second class honours) or

(157) An appropriate University Degree (first or second class honours) or

(158) An appropriate University Degree (first or second class honours) or

(159) An appropriate University Degree (first or second class honours) or

(160) An appropriate University Degree (first or second class honours) or

(161) An appropriate University Degree (first or second class honours) or

(162) An appropriate University Degree (first or second class honours) or

(163) An appropriate University Degree (first or second class honours) or

(164) An appropriate University Degree (first or second class honours) or

(165) An appropriate University Degree (first or second class honours) or

(166) An appropriate University Degree (first or second class honours) or

(167) An appropriate University Degree (first or second class honours) or

(168) An appropriate University Degree (first or second class honours) or

(169) An appropriate University Degree (first or second class honours) or

(170) An appropriate University Degree (first or second class honours) or

(171) An appropriate University Degree (first or second class honours) or

(172) An appropriate University Degree (first or second class honours) or

(173) An appropriate University Degree (first or second class honours) or

(174) An appropriate University Degree (first or second class honours) or

(175) An appropriate University Degree (first or second class honours) or

(176) An appropriate University Degree (first or second class honours) or

(177) An appropriate University Degree (first or second class honours) or

(178) An appropriate University Degree (first or second class honours) or

(179) An appropriate University Degree (first or second class honours) or

(180) An appropriate University Degree (first or second class honours) or

(181) An appropriate University Degree (first or second class honours) or

(182) An appropriate University Degree (first or second class honours) or

(183) An appropriate University Degree (first or second class honours) or

(184) An appropriate University Degree (first or second class honours) or

(185) An appropriate University Degree (